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1. (Four Times Amended). [An automatic] A prescription filling and packing system comprising one or more pill dispensing machines to automatically count out and dispense pills into two or more prescription bottles in accordance with prescription orders, [means to print literature packs customized to said prescription orders,] a computer responsive to the prescription orders to provide prescription bottles filled with pharmaceuticals in accordance with the prescriptions of said prescription orders, and order consolidation means [to present] comprising means to print literature packs customized to said prescription orders, an assembly station to assemble the order at said order consolidation and packing station, a bottle removing mechanism that removes the at least one bottle corresponding to a particular prescription order from at least one location for subsequent packing of the at least one bottle in the shipping container, and a bagger machine that presents a shipping container for each prescription order, [to insert] the shipping container receiving one or more prescription [bottle] bottles for [said] each prescription order [into such shipping container] and [to insert,] separately [from any prescription bottle inserted into the shipping container,] receiving the literature pack for [said] the prescription order [into such shipping container], the literature pack and each prescription bottle having an identifier identified by at least one identification system to ensure that the shipping container contains the one or more prescription bottles for the prescription order and the corresponding literature pack.

2. (Three Times Amended). The system as recited in claim 1, wherein some of said prescription orders include a plurality of prescriptions, said one or more pill dispensing [machine] machines dispensing the pills of the prescriptions of a prescription order into separate prescription bottles, said order consolidation means loading a plurality of prescription bottles of a prescription order containing more than one prescription into a common shipping container with a literature pack for such prescription order.

3. (Twice Amended). [An automatic prescription filling and packing] The system as recited in claim 1 [further comprising means to apply printed prescription labels] wherein the bottle identifiers are applied to said prescription bottles prior to [the insertion of said prescription bottles into a shipping container] dispensing the pharmaceuticals into the bottles.

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4. (Four Times Amended). A prescription dispensing and packing system comprising a plurality of bottle carriers each having receptacles to receive a plurality of pill bottles, means to receive orders for prescriptions, means to load prescription bottles corresponding to the prescriptions of said orders into scheduled locations in said carriers, a prescription pill dispensing machine, means to transport said carriers with said prescription bottles through said dispensing machine, said dispensing machine dispensing the pills of said orders into the bottles in said carriers in accordance with the scheduled locations of the pill bottles in said carriers, order consolidation means receiving carriers from said dispensing machine and presenting shipping containers to be filled, each shipping container corresponding to an order, said order consolidation means unloading bottles from said carriers, printing a literature pack corresponding to prescription orders, and loading one or more bottles and a corresponding literature pack into shipping containers corresponding to the orders, said order consolidation means determining each bottle to go in each shipping container from the scheduled location of such bottle in a carrier, the literature pack and each prescription bottle having an identifier identified by at least one identification system to ensure that the shipping container contains the one or more bottles corresponding to the prescription order and the corresponding literature pack, wherein said order consolidation means comprises an assembly mechanism to receive a plurality of said carriers, a bottle removing mechanism to unload prescription bottles from the carriers on said assembly mechanism, and means to transport the bottles unloaded from the carriers into shipping containers, and said order consolidation means presents the shipping container for each prescription order and inserts at least one bottle for each prescription order into the shipping container and inserts the corresponding literature pack for each prescription order into the shipping container, wherein said order consolidation means comprises:

an assembly mechanism for assembling each prescription order;  
a bottle removing mechanism that removes the at least one bottle corresponding to a particular prescription order from at least one location for subsequent packing of the at least one bottle in the shipping container; and

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a bagging machine that receives the at least one bottle corresponding to the particular prescription order from said bottle removing mechanism and inserts the at least one bottle corresponding to the particular prescription order into the shipping container.

5. (Canceled).

6. (Three Times Amended). A system as recited in claim 4, [including a plurality of] wherein said dispensing machines [each receiving] receive said carriers with bottles and [dispensing pills] dispense pharmaceuticals into the prescription bottles corresponding to orders in accordance with [the] scheduled locations of said prescription bottles in said carriers, further comprising conveying means for organizing said [carries] carriers into ranks of a plurality of carriers and passing a rank of carriers through said dispensing machines synchronously, said system further comprising a plurality of said order consolidation means and conveyer means to direct all the carriers of a rank to the same order consolidation means.

7. (Original). A system as recited in claim 4, wherein some of said orders include a plurality of prescriptions, said automatic dispensing machine dispensing each prescription of an order in a separate bottle, said order consolidation means loading a plurality of bottles of an order into a common shipping container.

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8. (Four Times Amended). A system for assembling prescriptions by prescription order wherein an order may include more than one prescription bottle, comprising a multiplicity of carriers each having the capability of receiving a multiplicity of prescription bottles [in scheduled locations], means responsive to an order to provide prescription bottles filled with pharmaceuticals in accordance with the prescriptions of said patient order in one or more of said carriers, an order consolidation and packing (OCP) station comprising [station,] means [to assemble] for assembling a plurality of carriers [at said order and packing station], and [packing] means [at said order and consolidation station to remove] for removing the prescription bottles of said order from the [scheduled locations in the] carriers [of said plurality] and [pack] packing the bottles of said order in a container with a corresponding customized literature pack, the customized literature pack and each prescription bottle having an identifier identified by at least one identification system to ensure that the one or more prescription bottles associated with a corresponding prescription order are inserted into a shipping container with the corresponding customized literature pack, and said OCP station presents the shipping container for each prescription order and inserts at least one bottle for each prescription order into the shipping container and inserts the corresponding literature pack for each prescription order into the shipping container, wherein said OCP station comprises:

an assembly mechanism for assembling each prescription order;  
a bottle removing mechanism that removes the at least one bottle corresponding to a particular prescription order from at least one location for subsequent packing of the at least one bottle in the shipping container; and  
a bagging machine that receives the at least one bottle corresponding to the particular prescription order from said bottle removing mechanism and inserts the at least one bottle corresponding to the particular prescription order into the shipping container..

9. (Twice Amended). The system as recited in claim 8 [further comprising] wherein said OCP station further comprises means [to print] for printing the customized literature for said order [and pack said literature in said container at said consolidation and packing station].

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10. (Four Times Amended). A system for sorting prescriptions by prescription order comprising a carrier having the capability of receiving a multiplicity of prescription bottles [in assigned locations], means responsive to a prescription of an order to provide [a] one or more prescription [bottle] bottles filled with pharmaceuticals [in accordance with said prescription in an assigned location in said carrier], an order consolidation and packing station comprising means [to receive] for receiving said carrier, [and remove] means for removing said one or more prescription [bottle] bottles from said [assigned location in said] carrier, and [pack] means for packing said one or more prescription [bottle] bottles and a corresponding customized literature pack in a container [corresponding to said order], the customized literature pack and each of said one or more prescription bottles having an identifier identified by at least one identification system to ensure that the one or more prescription bottles associated with a corresponding prescription order are inserted into the shipping container with the corresponding customized literature pack, wherein said and said order consolidation and packing station presents the shipping container for each prescription order and inserts at least one bottle for each prescription order into the shipping container and inserts the corresponding literature pack for each prescription order into the shipping container, wherein said order consolidation and packing station comprises:

an assembly mechanism for assembling each prescription order;

a bottle removing mechanism that removes the at least one bottle corresponding to a particular prescription order from at least one location for subsequent packing of the at least one bottle in the shipping container; and

a bagging machine that receives the at least one bottle corresponding to the particular prescription order from said bottle removing mechanism and inserts the at least one bottle corresponding to the particular prescription order into the shipping container .

11. (Twice Amended). A system as recited in claim 10 further comprising means [to print] for printing the customized literature pack corresponding to said order[ and pack said literature in said container at said order consolidation and packing station].

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12. (Three Times Amended). A method of sorting prescription bottles by prescription order comprising identifying one or more prescription bottles corresponding to each order, placing the one or more prescription bottles of each order in [scheduled locations in] carriers, each carrier having a multiplicity of locations to receive prescription bottles, maintaining a record for each order of the identification of the carriers containing the one or more prescription bottles of each order [and the scheduled location in said carriers of each prescription bottle of each order], [and] removing the one or more prescription bottles from the [scheduled locations in said] carriers in accordance with said record and placing the one or more prescription bottles and a corresponding customized literature pack of each order in a [separate] container, assembling each prescription order, removing the at least one bottle corresponding to a particular prescription order from at least one location for subsequent packing of the at least one bottle in the shipping container, and receiving the at least one bottle corresponding to the particular prescription order from said bottle removing mechanism and inserting the at least one bottle corresponding to the particular prescription order into the shipping container, presenting the shipping container for each prescription order and inserting at least one bottle for each prescription order into the shipping container and inserting the corresponding literature pack for each prescription order into the shipping container.

13. (Once Amended). A method as recited in claim 12 further comprising applying [a label] an identifier to each prescription bottle identifying the prescription in the order corresponding to said prescription bottle.

14. (Twice Amended). A method as recited in claim [12 further comprising filling said prescription] 13 wherein the identifier is applied to each of the one or more bottles [with pills in accordance with said patient orders after said prescription] prior to filling said prescription bottles [have been placed in scheduled locations in said carrier] with pills.

15. (Original). A method as recited in claim 13 further comprising filling said prescription bottles after said prescription bottles have been labeled and placed in scheduled locations in said carriers.

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PATENT16. A prescription filling and packing system comprising:

at least one dispensing machine that automatically counts and dispenses pharmaceuticals into bottles in accordance with prescription orders comprising at least one prescription;  
at least one printer for printing literature packs customized to the prescription orders; and  
at least one order consolidation and packing (OCP) station that presents a shipping container for each prescription order and inserts at least one bottle for each prescription order into the shipping container and inserts a corresponding literature pack for each prescription order into the shipping container, the literature pack and each of the at least one bottle having at least one corresponding identifier identified by at least one identification system to ensure that the shipping container contains the at least one bottle associated with the prescription order and the corresponding literature pack, wherein said at least one OCP station comprises:  
an assembly mechanism for assembling a plurality of carriers, each having receptacles to receive a plurality of bottles in scheduled locations;  
a bottle removing mechanism that removes the at least one bottle corresponding to a particular prescription order from at least one corresponding scheduled location in at least one of the plurality of carriers for subsequent packing of the at least one bottle in the shipping container; and  
a bagging machine that receives the at least one bottle corresponding to the particular prescription order from said bottle removing mechanism and inserts the at least one bottle corresponding to the particular prescription order into the shipping container.

17. (Canceled).

18. The prescription filling and packing system as recited in claim 16 wherein said at least one OCP station further comprises a buffer that temporarily stores the plurality of carriers before they are received at said turntable.

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19. The prescription filling and packing system as recited in claim 16 wherein each of said at least one dispensing machine receives at least one of the plurality of carriers and dispenses pharmaceuticals into the bottles corresponding to each prescription order in accordance with the scheduled locations of the plurality of bottles in the plurality of carriers, and further comprising at least one transport device that organizes the plurality of carriers into ranks of carriers and passes the ranks of carriers through at least two of said at least one dispensing machine synchronously, wherein each said at least one OCP station receives all the carriers of a rank.

20. The prescription filling and packing system as recited in claim 16 wherein said at least one OCP station further comprises a system that receives the at least one bottle from said bottle removing mechanism and inserts the at least one bottle into said bagging machine.

21. The prescription filling and packing system as recited in claim 20 wherein said system comprises a first wheel that rotates about a vertical axis and receives the at least one bottle from said bottle removing mechanism and a second wheel that rotates about a horizontal axis and receives the at least one bottle from said first wheel and inserts the at least one bottle into said bagging machine.

22. The prescription filling and packing system as recited in claim 16 wherein said bottle removing mechanism comprises a mechanical arm.

23. The prescription filling and packing system as recited in claim 16 further comprising an applicator that affixes the at least one identifier identified by at least one identification system to each of the at least one bottle.

24. The prescription filling and packing system as recited in claim 23 wherein said applicator affixes the identifier to each of the at least one bottle prior to dispensing pharmaceuticals therein.

25. The prescription filling and packing system as recited in claim 16 wherein the shipping container has an identifier affixed thereto identified by the at least one identification system.



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26. The prescription filling and packing system as recited in claim 25 wherein the shipping container identifier comprises a patient order identification.

27. The prescription filling and packing system as recited in claim 16 wherein for each prescription order comprising a plurality of prescriptions, said at least one dispensing machine dispenses each prescription into a separate bottle for each prescription, and said at least one OCP station loads the separate bottles for each prescription into a common shipping container.

28. The prescription filling and packing system as recited in claim 16 wherein the bottles are presented to said at least one OCP station in a plurality of carriers, each having receptacles to receive a plurality of bottles, the plurality of carriers each having an identification affixed thereto to ensure that the correct carrier is presented to said at least one OCP station.

29. The prescription filling and packing system as recited in claim 28 wherein the identification is a radio frequency identifier.

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30. A prescription dispensing and packing system comprising:  
a plurality of carriers, each having receptacles to receive a plurality of bottles in scheduled locations;  
a computer that receives prescription orders comprising at least one prescription;  
a loading station that loads the plurality of bottles in the scheduled locations corresponding to the prescription orders in at least one of said plurality of carriers;  
at least one dispensing machine that counts and simultaneously dispenses pharmaceuticals into at least two of the plurality of bottles;  
at least one transport device that transports said plurality of carriers with the plurality of bottles through said at least one dispensing machine, said at least one dispensing machine simultaneously dispensing the pharmaceuticals into at least two bottles of the prescription orders received by said computer into the plurality of bottles in said plurality of carriers in accordance with the scheduled locations; and  
at least one order consolidation and packing (OCP) station that receives said plurality of carriers from said at least one dispensing machine and presents shipping containers to be filled, said at least one OCP station unloading the plurality of bottles from said plurality of carriers and loading at least one of the plurality of bottles and a corresponding customized literature pack corresponding to a prescription order into a shipping container, the literature pack and each of the bottles having at least one corresponding identifier identified by at least one identification system to ensure that each of one or more bottles associated with the corresponding prescription order are inserted into the shipping container with the corresponding literature pack, wherein said at least one OCP station comprises:  
an assembly mechanism for assembling said plurality of carriers;  
a bottle removing mechanism that removes the at least one of the plurality of bottles corresponding to each of the at least one of the prescription orders from at least one corresponding scheduled location in at least one of said plurality of carriers for subsequent packing of the at least one of the plurality of bottles in the shipping container; and

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a bagging machine that receives the at least one of the plurality of bottles corresponding to each of the at least one of the prescription orders from said bottle removing mechanism and inserts the at least one of the plurality of bottles corresponding to each of the at least one of the prescription orders into the shipping container.

31. The prescription dispensing and packing system as recited in claim 30, wherein said customized literature pack is inserted into the shipping container separately from the bottles.

32. (Canceled).

33. The prescription dispensing and packing system as recited in claim 30 wherein said at least one OCP station further comprises a carrier buffer that temporarily stores said plurality of carriers before they are received at said turntable.

34. The prescription dispensing and packing system as recited in claim 30 wherein said at least one OCP station further comprises a star wheel system that receives the at least one of the plurality of bottles from said bottle removing mechanism and inserts the at least one of the plurality of bottles into said bagging machine.

35. The prescription dispensing and packing system as recited in claim 34 wherein said star wheel system comprises a first star wheel that rotates about a vertical axis and receives the at least one of the plurality of bottles from said bottle removing mechanism and a second star wheel that rotates about a horizontal axis and receives the at least one of the plurality of bottles from said first star wheel and inserts the at least one of the plurality of bottles into said bagging machine.

36. The prescription dispensing and packing system as recited in claim 30 further comprising at least one printer that prints the identifier for each of the at least one of the plurality of bottles.

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37. The prescription dispensing and packing system as recited in claim 36 further comprising an applicator that affixes the identifier on each of the at least one of the plurality of bottles in accordance with each of the at least one of the prescription orders prior to dispensing pharmaceuticals into the bottles.

38. The prescription dispensing and packing system as recited in claim 30 wherein the shipping container has an identifier affixed thereto corresponding to each of the at least one prescription orders.

39. The prescription dispensing and packing system as recited in claim 38 wherein the identifier comprises a patient order identification.

40. The prescription dispensing and packing system as recited in claim 30 wherein each of said at least one dispensing machine receives at least one of said plurality of carriers and dispenses pharmaceuticals into the bottles corresponding to the at least one of the prescription orders in accordance with the scheduled locations of the plurality of bottles in said plurality of carriers, wherein each of said at least one transport device organizes respective said plurality of carriers into ranks of carriers and passes the ranks of carriers through at least two of said at least one dispensing machine synchronously.

41. The prescription dispensing and packing system as recited in claim 30 wherein for each of the at least one of the prescription orders comprising a plurality of prescriptions, said at least one dispensing machine dispenses each prescription into at least one separate bottle for each prescription, and said at least one OCP station loads the at least one separate bottle for each prescription into a common shipping container.

42. The prescription dispensing and packing system as recited in claim 30 wherein each of said plurality of carriers has an identifier affixed thereto to ensure that the correct carrier is presented to said at least one OCP station.

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43. The prescription dispensing and packing system as recited in claim 40 further comprising an assembly station that receives two or more bottles that are in different ranks of carriers.

44. A system for assembling prescriptions by prescription order, comprising:  
at least one carrier, each having receptacles to receive at least one bottle in scheduled locations;  
at least one dispensing machine responsive to at least one prescription order comprising at least one prescription to fill one or more bottles in any of said at least one carrier with pharmaceuticals in accordance with the at least one prescription order; and  
at least one order consolidation and packing (OCP) station at which the one or more bottles corresponding to a prescription order are unloaded from said at least one carrier and placed in a shipping container with a literature pack corresponding to the prescription order, each of the one or more bottles and the literature pack having at least one corresponding identifier identified by at least one identification system to ensure that the shipping container contains the one or more bottles corresponding to the prescription order and the corresponding literature pack, wherein said at least one OCP station comprises:  
an assembly mechanism for assembling said at least one carrier;  
a bottle removing mechanism that removes the at least one bottle corresponding to the at least one prescription order from the scheduled locations in said at least one carrier for subsequent packing of the at least one bottle corresponding to the at least one prescription order in a shipping container; and  
a bagging machine that receives the at least one bottle corresponding to the at least one prescription order from said bottle removing mechanism and inserts the at least one bottle in the shipping container corresponding to the at least one prescription order.

45. (Canceled).

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46. The system as recited in claim 44 wherein said at least one OCP station further comprises a carrier buffer that temporarily stores said at least one carrier before said at least one carrier is received at said turntable.

47. The system as recited in claims 44 wherein said at least one OCP station further comprises a star wheel system that receives the at least one bottle from said bottle removing mechanism and inserts the at least one bottle into said bagging machine.

48. The system as recited in claim 47 wherein said star wheel system further comprises a first star wheel that rotates about a vertical axis and receives the at least one bottle from said bottle removing mechanism and a second star wheel that rotates about a horizontal axis and receives the at least one bottle from said first star wheel and inserts the at least one bottle into said bagging machine.

49. The system as recited in claim 44 further comprising at least one printer for printing the identifier for each of the at least one bottle and for printing a literature pack for the at least one prescription order.

50. The system as recited in claim 49 further comprising an applicator that affixes the identifier on each of the at least one bottle in accordance with the at least one prescription order.

51. The system as recited in claim 50 wherein said applicator affixes the identifier on each of the at least one bottle prior to filling each of the at least one bottle with pharmaceuticals.

52. The system as recited in claim 44 wherein the shipping container has an identifier affixed thereto corresponding to each of the at least one prescription order.

53. The system as recited in claim 52 wherein the identifier comprises a patient order identification.

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54. The system as recited in claim 44 wherein each of said at least one dispensing machine receives at least one of said at least one carrier and dispenses pharmaceuticals into each of the at least one bottle corresponding to the respective at least one prescription order in accordance with the scheduled locations of the plurality of bottles in said at least one carrier, and further comprising at least one transport device that organizes said at least one carrier into ranks of carriers and passes the ranks of carriers through at least two of said at least one dispensing machine synchronously, wherein each respective said at least one OCP station receives all the carriers of a rank.

55. The system as recited in claim 44 wherein for each of the at least one prescription order comprising a plurality of prescriptions, said at least one dispensing machine dispenses each prescription comprising a plurality of prescriptions into a separate bottle for each prescription, and said at least one OCP station loads the separate bottles for each prescription into a common shipping container.

56. The system as recited in claim 44 wherein each of said at least one carrier has an identifier affixed thereto to ensure that the correct carrier is presented to said at least one OCP station.

57. The system as recited in claim 56 wherein the identifier is a radio frequency identifier.

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58. A prescription dispensing and packing system comprising:  
a plurality of carriers, each having receptacles to receive a plurality of bottles in scheduled locations;  
a computer that receives prescription orders comprising at least one prescription;  
at least one loading station that loads the plurality of bottles into the scheduled locations of said plurality of carriers;  
at least one dispensing machine responsive to said computer that counts and simultaneously dispenses pharmaceuticals into at least two of the plurality of bottles;  
at least one transport device that transports said plurality of carriers with the plurality of bottles through said at least one dispensing machine, said at least one dispensing machine dispensing the pharmaceuticals of the prescription orders received by said computer into the plurality of bottles in said plurality of carriers in accordance with the scheduled locations of the plurality of bottles in said plurality of carriers; and  
at least one order consolidation and packing (OCP) station that receives said plurality of carriers from said at least one dispensing machine and presents shipping containers to be filled, and inserts at least one of the plurality of bottles and a corresponding literature pack for the prescription order into a shipping container corresponding to the prescription order, the literature pack and each of the at least one bottle having at least one corresponding identifier identified by at least one identification system so that the shipping container receives the at least one bottle and the literature pack corresponding to the prescription order, wherein said at least one OCP station comprises:  
an assembly mechanism for assembling said plurality of carriers;  
a bottle removing mechanism that removes the at least one of the plurality of bottles corresponding to the prescription order from at least one corresponding scheduled location in at least one of said plurality of carriers for subsequent packing of the at least one of the plurality of bottles in the shipping container; and  
a bagging machine that receives the at least one of the plurality of bottles corresponding to the prescription order from said bottle removing mechanism and inserts the at least one of the plurality of bottles corresponding to the prescription order in the shipping container.



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59. The prescription dispensing and packing system as recited in claim 58 wherein said at least one OCP station determines which of the at least one bottle is inserted in each respective shipping container from the respective literature pack identifier and respective prescription bottle identifier.

60. (Canceled).

61. The prescription dispensing and packing system as recited in claim 58 wherein said bottle removing mechanism is responsive to said computer in determining which of the at least one of the plurality of bottles is packed in the shipping container corresponding to the prescription order.

62. The prescription dispensing and packing system as recited in claim 58 wherein said at least one OCP station further comprises a carrier buffer that temporarily stores said plurality of carriers before they are transferred to said turntable.

63. The prescription dispensing and packing system as recited in claim 58 wherein said at least one OCP station further comprises a star wheel system that receives the at least one of the plurality of bottles from said bottle removing mechanism and inserts the at least one of the plurality of bottles into said bagging machine.

64. The prescription dispensing and packing system as recited in claim 63 wherein said star wheel system further comprises a first star wheel that rotates about a vertical axis and receives the at least one of the plurality of bottles from said bottle removing mechanism and a second star wheel that rotates about a horizontal axis and receives the at least one of the plurality of bottles from said first star wheel and inserts the at least one of the plurality of bottles into said bagging machine.

65. The prescription dispensing and packing system as recited in claim 58 further comprising at least one printer for printing an identifier for each of the at least one of the plurality of bottles and for printing the literature pack for the prescription order.

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66. The prescription dispensing and packing system as recited in claim 65 wherein said shipping container further receives a literature pack corresponding to the prescription order.

67. The prescription dispensing and packing system as recited in claim 65 further comprising an applicator that affixes one of the prescription labels on each of the at least one of the plurality of bottles in accordance with the prescription order.

68. The prescription dispensing and packing system as recited in claim 67 wherein said applicator affixes an identifier on each of the at least one of the plurality of bottles prior to insertion of the at least one of the plurality of bottles into the shipping container corresponding to the prescription order carriers.

69. The prescription dispensing and packing system as recited in claim 68 wherein the shipping container has an identifier affixed thereto corresponding to the prescription order.

70. The prescription dispensing and packing system as recited in claim 69 wherein the shipping container identifier comprises a patient order identification.

71. The prescription dispensing and packing system as recited in claim 58 wherein each of said at least one dispensing machine receives at least one of said plurality of carriers and dispenses pharmaceuticals into the at least one of the plurality of bottles corresponding to the prescription order in accordance with scheduled locations of the plurality of bottles in said plurality of carriers, wherein each of said at least one transport device organizes said plurality of carriers into ranks of carriers and passes the ranks of carriers through at least two of said at least one dispensing machine synchronously, and wherein each respective said at least one OCP station receives all the carriers of a rank.

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72. The prescription dispensing and packing system as recited in claim 58 wherein for each prescription order comprising a plurality of prescriptions, said at least one dispensing machine dispenses each prescription into at least one separate bottle for each prescription, and said at least one OCP station loads the at least one separate bottle for each prescription into a common shipping container.

73. The prescription dispensing and packing system as recited in claim 58 wherein each of said plurality of carriers has an identifier affixed thereto to ensure that the correct carrier is presented to said at least one OCP station.

74. The prescription dispensing and packing system as recited in claim 71 further comprising an assembly station that receives two or more bottles that are in different ranks of carriers.

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75. A prescription dispensing and packing system comprising:  
a plurality of carriers, each having receptacles to receive a plurality of bottles;  
at least one loading station that loads at least one of the plurality of bottles into at least one  
of said plurality of carriers;  
at least one dispensing machine that counts and simultaneously dispenses pharmaceuticals  
into at least two of the plurality of bottles in accordance with prescription orders;  
at least one transport device that transports said plurality of carriers with the plurality of  
bottles through said at least one dispensing machine, said at least one dispensing machine  
dispensing the pharmaceuticals of the prescription orders into the plurality of bottles  
corresponding to the prescription orders; and  
at least one order consolidation and packing (OCP) station that receives said plurality of  
carriers from said at least one dispensing machine and presents shipping containers to be  
filled, said at least one OCP station unloading the plurality of bottles from said plurality  
of carriers and loading at least one of the plurality of bottles and a corresponding  
literature pack into a shipping container, said at least one OCP station determining which  
of the at least one of the plurality of bottles and corresponding literature pack goes into  
each shipping container, each of the one or more bottles and the literature pack having at  
least one corresponding identifier identified by at least one identification system to ensure  
that each of the at least one bottles associated with a prescription order is inserted into the  
shipping container with the corresponding literature pack, wherein said at least one OCP  
station comprises:  
an assembly mechanism for assembling said plurality of carriers;  
a bottle removing mechanism that removes the at least one of the plurality of bottles  
corresponding to the prescription order from at least one corresponding scheduled  
location in at least one of said plurality of carriers for subsequent packing of the at  
least one of the plurality of bottles in the shipping container; and  
a bagging machine that receives the at least one of the plurality of bottles corresponding  
to the prescription order from said bottle removing mechanism and inserts the at least  
one of the plurality of bottles corresponding to the prescription order into the shipping  
container corresponding to the prescription order.

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76. The prescription dispensing and packing system as recited in claim 75, wherein said customized literature pack is inserted into the shipping container separately from the bottles.

77. (Canceled).

78. The prescription dispensing and packing system as recited in claim 75 wherein said at least one OCP station further comprises a carrier buffer that temporarily stores said plurality of carriers before they are received at said turntable.

79. The prescription dispensing and packing system as recited in claim 75 wherein said at least one OCP station further comprises a star wheel system that receives the at least one of the plurality of bottles from said bottle removing mechanism and inserts the at least one of the plurality of bottles into said bagging machine.

80. The prescription dispensing and packing system as recited in claim 79 wherein said star wheel system comprises a first star wheel that rotates about a vertical axis and receives the at least one of the plurality of bottles from said bottle removing mechanism and a second star wheel that rotates about a horizontal axis and receives the at least one of the plurality of bottles from said first star wheel and inserts the at least one of the plurality of bottles into said bagging machine.

81. The prescription dispensing and packing system as recited in claim 76 further comprising at least one printer for printing the identifier for each of the at least one of the plurality of bottles and for printing a customized literature pack for the prescription order.

82. The prescription dispensing and packing system as recited in claim 75 wherein the shipping container further receives the customized literature pack corresponding to the prescription order.

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83. The prescription dispensing and packing system as recited in claim 81 further comprising an applicator that affixes an identifier on each of the at least one of the plurality of bottles in accordance with the prescription order.

84. The prescription dispensing and packing system as recited in claim 75 wherein the shipping container has an identifier affixed thereto.

85. The prescription dispensing and packing system as recited in claim 84 wherein the shipping container identifier comprises at least one of a patient order identification and a mailing address.

86. The prescription dispensing and packing system as recited in claim 83 wherein said applicator affixes the identifier to each of the at least one of the plurality of bottles prior to insertion of the at least one of the plurality of bottles into at least one of said plurality of carriers.

87. The prescription dispensing and packing system as recited in claim 75 wherein each of said at least one dispensing machine receives at least one of said plurality of carriers and dispenses pharmaceuticals into the at least one of the plurality of bottles corresponding to the prescription order in accordance with the scheduled locations of the plurality of bottles in said plurality of carriers, wherein each of said at least one transport device organizes respective said carriers into ranks of carriers and passes the ranks of carriers through at least two of said at least one dispensing machine synchronously, and wherein each respective said at least one OCP station receives all the carriers of a rank.

88. The prescription dispensing and packing system as recited in claim 75 wherein for each prescription order comprising a plurality of prescriptions, said at least one dispensing machine dispenses each prescription into at least one separate bottle for each prescription, and said at least one OCP station loads the at least one separate bottle for each prescription into a common shipping container.

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89. The prescription dispensing and packing system as recited in claim 75 wherein each of said at least one carrier has an identifier affixed thereto to ensure that the correct carrier is presented to said at least one OCP station.

90. The prescription dispensing and packing system as recited in claim 89 wherein the identifier is a radio frequency identifier.

91 – 113. (Canceled).

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114. A prescription dispensing and packing system comprising:  
a plurality of carriers, each having receptacles to receive a plurality of bottles in scheduled  
locations, each of the plurality of bottles having a first identifier affixed thereto  
corresponding to a prescription of a prescription order comprising one or more  
prescriptions;  
a computer that receives prescription orders;  
at least one dispensing machine responsive to said computer that automatically counts and  
dispenses the type and quantity of pharmaceuticals into the plurality of bottles in  
accordance with the prescription orders in the scheduled locations of the corresponding  
plurality of carriers; and  
at least one order consolidation and packing (OCP) station comprising:  
an assembly mechanism for assembling said plurality of carriers;  
a printer for printing a literature pack customized to a particular prescription order, the  
literature pack having a second identifier affixed thereto corresponding to the  
particular prescription order;  
a bottle removing mechanism that removes at least one bottle corresponding to a  
prescription order from at least one corresponding scheduled location in at least one  
of said plurality of carriers for subsequent packing of the at least one bottle in a  
shipping container corresponding to the prescription order; and  
a bagging machine that receives the literature pack and the at least one bottle  
corresponding to the prescription order from said bottle removing mechanism and  
inserts the at least one bottle corresponding to the prescription order in the shipping  
container.

115. The prescription dispensing and packing system as recited in claim 114 wherein the  
shipping container has a third identifier affixed thereto.

116. (Canceled).

117. (Canceled).



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118. The prescription dispensing and packing system as recited in claim 114 wherein said computer verifies that the respective bottle and literature pack identifiers are associated with the same prescription order, said bagging machine inserting the literature pack into the shipping container with the at least one bottle corresponding to the prescription order.

119. The prescription dispensing and packing system as recited in claim 114 wherein said at least one OCP station further comprises a star wheel system that receives the at least one bottle from said bottle removing mechanism and inserts the at least one bottle into said bagging machine.

120. The prescription dispensing and packing system as recited in claim 119 wherein said star wheel system comprises a first star wheel that rotates about a vertical axis and receives the at least one bottle from said bottle removing mechanism and a second star wheel that rotates about a horizontal axis and receives the at least one bottle from said first star wheel and inserts said at least one bottle into said bagging machine.

121. The prescription dispensing and packing system as recited claim 115 wherein said at least one dispensing machine fills any of a plurality of bottle sizes with any of a plurality of pharmaceuticals as determined by said computer.

122. The prescription dispensing and packing system as recited in claim 114 wherein each of said plurality of carriers has fourth identifier affixed thereto to ensure that the correct carrier is presented to said at least one OCP station.

123. The prescription dispensing and packing system as recited in claim 122 wherein the fourth identifier is a radio frequency identifier.

124 – 147. (Canceled).

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148. A system for assembling prescriptions by prescription order wherein an order may include more than one prescription bottle, comprising:  
a multiplicity of carriers each having the capability of receiving a multiplicity of prescription bottles in scheduled locations;  
a computer responsive to an order to provide prescription bottles filled with pharmaceuticals in accordance with the prescriptions of said patient order in one or more of said carriers;  
an order consolidation and packing station;  
an assembly station to assemble a plurality of carriers at said order and packing station; and  
a bagging machine at said order and consolidation station to remove the prescription bottles of said order from the scheduled locations in the carriers of said plurality and pack the bottles of said order in a container with a corresponding literature pack, the literature pack and each prescription bottle having an identifier read by a respective literature pack identification reader and a respective prescription bottle identification reader to ensure that the one or more prescription bottles associated with a corresponding prescription order are inserted into a shipping container with the corresponding literature pack.

149. The system as recited in claim 148 further comprising at least one printer associated with said order consolidation and packing station to print literature packs.

150 – 152. (Canceled).

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153. A prescription filling and packing system comprising:  
at least one dispensing machine that automatically counts and dispenses pharmaceuticals  
into bottles in accordance with prescription orders comprising at least one prescription;  
at least one printer for printing literature packs customized to the prescription orders; and  
at least one order consolidation and packing (OCP) station comprising:  
an assembly mechanism for assembling a plurality of carriers, each having receptacles to  
receive a plurality of bottles in scheduled locations;  
a bottle removing mechanism that removes at least one bottle corresponding to a particular  
prescription order from a respective scheduled location in at least one of the plurality of  
carriers for subsequent packing in a shipping container;  
a reader that electronically reads an identifier on each of said at least one bottle and  
electronically reads an identifier on the literature pack which is used to ensure that each  
of the at least one bottle is inserted into the shipping container with the corresponding  
literature pack; and  
a bagging machine that receives from said bottle removing mechanism the at least one  
bottle, and receives the literature pack corresponding to the particular prescription order,  
said bagging machine inserting the at least one bottle and the literature pack into the  
shipping container.

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154. A system for assembling prescriptions by prescription order, comprising:  
at least one carrier, each having receptacles to receive at least one bottle in scheduled  
locations;  
at least one dispensing machine responsive to at least one prescription order comprising at  
least one prescription to fill one or more bottles in any of said at least one carrier with  
pharmaceuticals in accordance with the at least one prescription order; and  
at least one order consolidation and packing (OCP) station comprising:  
an assembly mechanism for assembling said at least one carrier;  
a printer that prints a literature pack for at least one prescription order;  
a bottle removing mechanism that removes the at least one bottle corresponding to the at  
least one prescription order from the scheduled locations in said at least one carrier for  
subsequent packing of the at least one bottle corresponding to the at least one prescription  
order in a shipping container;  
at least one reader that electronically reads a first identifier on each of said at least one bottle  
and electronically reads a second identifier on the literature pack corresponding to the  
prescription order to ensure that each of the at least one bottle is inserted into the shipping  
container with the corresponding literature pack; and  
a bagging machine that receives the at least one bottle corresponding to the at least one  
prescription order from said bottle removing mechanism and inserts the at least one bottle  
and the corresponding literature pack in the shipping container.

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155. A prescription dispensing and packing system comprising:  
a plurality of carriers, each having receptacles to receive a plurality of bottles in scheduled locations;  
a computer that receives prescription orders comprising at least one prescription;  
at least one loading station that loads the plurality of bottles into the scheduled locations of said plurality of carriers;  
at least one dispensing machine responsive to said computer that counts and simultaneously dispenses pharmaceuticals into at least one of the plurality of bottles;  
at least one transport device that transports said plurality of carriers with the plurality of bottles through said at least one dispensing machine, said at least one dispensing machine dispensing the pharmaceuticals of the prescription orders received by said computer into the plurality of bottles in said plurality of carriers in accordance with the scheduled locations of the plurality of bottles in said plurality of carriers; and  
at least one order consolidation and packing (OCP) station comprising:  
an assembly mechanism for assembling said plurality of carriers;  
a printer that prints a literature pack for at least one prescription order;  
a bottle removing mechanism that removes the at least one of the plurality of bottles corresponding to the prescription order from at least one corresponding scheduled location in at least one of said plurality of carriers for subsequent packing of the at least one of the plurality of bottles in the shipping container;  
an first indicia reader that electronically reads indicia on each of said at least one bottle, and a second indicia reader that electronically reads indicia on the literature pack corresponding to the prescription order, said first and second indicia readers ensuring that each of the at least one bottle is inserted into the shipping container with the corresponding literature pack; and  
a bagging machine that receives the at least one of the plurality of bottles corresponding to the prescription order from said bottle removing mechanism and inserts the at least one of the plurality of bottles and the literature pack corresponding to the prescription order in the shipping container.

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156. A system for filling at least one order, comprising:

at least one pill dispenser that simultaneously dispenses pills into two or more bottles;

at least one order consolidation station configured to provide at least one literature pack

having a first identifier and containing printed literature relating to the at least one order

and comprising patient specific information associated with the at least one order, and

configured to receive at least one bottle having a second identifier and containing

pharmaceutical products, wherein the at least one bottle is associated with the at least one

order, and wherein the at least one order includes at least one prescription for the at least

one bottle;

the order consolidation station being further configured to read the first and second

identifiers and combine automatically the at least one literature pack and the at least one

bottle to send the combined at least one literature pack and the at least one bottle to at

least one recipient corresponding to the at least one order, to thereby fill the at least one

order, each of said at least one order consolidation station further comprising:

an assembly mechanism for assembling at least one bottle carrier, each bottle carrier

having an array of locations and configured to store each of the at least one bottle in  
one of the array locations;

a bottle removing mechanism that removes one or more bottles corresponding to a

prescription order from at least one of said plurality of carriers for subsequent

packing of the at least one of the plurality of bottles in a shipping container; and

a bagging machine that receives the at least one of the plurality of bottles corresponding

to the prescription order from said bottle removing mechanism and inserts the

prescription order bottles in the shipping container.

157. The system of claim 156, wherein said at least one order consolidation station

comprises one or more readers to read the identifiers.

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158. The system of claim 156, further comprising:

at least one bottle carrier, each bottle carrier having an array of locations configured to store each of the at least one bottle in one of the array locations; and  
at least one pill dispenser that simultaneously dispenses pills into two or more of the at least one bottle.

159. The system of claim 156, wherein at least one of the first and second identifiers comprise a bar code.

160. The system of claim 156, further comprising a printer to print at least one label for a shipping container for each of the at least one order, wherein the label is printed with patient specific shipping address information.

161. The system of claim 158, wherein each of said at least one bottle carrier has an identifier that can be read to indicate what prescription bottles are positioned in the array locations.

162. The system of claim 158, wherein each of said at least one order consolidation station further includes an error detection system configured to reject a defective shipping container.

163. (Canceled).

164. The prescription dispensing and packing system as recited in claim 156 wherein said bottle removing mechanism is responsive to a computer in determining which of the bottles is packed in the shipping container.

165. The prescription dispensing and packing system as recited in claim 156 wherein each of said at least one order consolidation station further comprises a carrier buffer that temporarily stores one or more of said at least one bottle carrier before they are transferred to a turntable.

Claims 166-218 (Cancelled)